DOCUMENT RESUME

ED 095 582 CS 201 554

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TITLE A Multi-Systems Theory of Organizational Communication.
PUB DATE Aug 74
NOTE 42p.; Paper presented at the Annual Meeting of the Association for Education in Journalism (57th, San Diego, August 18-21, 1974)

EDRS PRICE MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS *Behavior Patterns; *Communication (Thought Transfer); Higher Education; Interpersonal Relationship; *Organizational Communication; Organizational Development; *Organizational Theories; *Systems Analysis; Systems Concepts

ABSTRACT

This paper builds a theory of organizational communication which explains communication at several system levels. The theory is built around a decision-situation model of communication theory and incorporates concepts of organization structure and behavior taken from research on complex organizations. The theory is supported with original data from five studies of organizational communication: a study of internal communication in a utility company, a study of the consumer information program of a food and general merchandise chain, a study of communication procedures of public relations practitioners in 216 organizations, a study of organization-clientele communication in a community development agency, and a study of inter-organizational communication in a community. (Author/RB)

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A MULTI-SYSTEMS THEORY OF ORGANIZATIONAL COMMUNICATION

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Paper presented to the Theory and Methodology Division,
Association for Education in Journalism, San Diego, California,
August 18-21, 1974.

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A MULTI-SYSTEMS THEORY OF ORGANIZATIONAL COMMUNICATION

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Organizational communication is an area of research that fits well with Wilbur Schramm's (1973a) analogy for the state of communication research a few years ago. Organizational communication is much like the oasis in the middle of the desert through which many travelers pass, but in which few linger long enough to meet one another.

Classical management theorists lingered in the oasis only long enough to point out that communication should flow downward in an organization and that commands should be clear and preferably presented in written form so that subordinates would have little difficulty understanding management wishes. Human relations theorists tasted the water in the oasis (communication) and liked it so much that they ran off to extoll its virtures to every manager in sight without bothering to study it much.

Perrow (1970), Etzioni (1964), Hall (1972), and others have pointed out that a sociological or structural approach to organizations is a more fruitful approach than either the classical management or human relations approach. According to Perrow, the structural school combines the scientific management and human relations approaches, placing primary emphasis on organizational variables such as technology, centralization, and formalization, but yet examining the impact of structure on human behavior in the organization. The structural approach differs from human relations, however, in that structure is considered

the cause of individual behavior in an organization, not the other way around.

Hall (1972: 291) describes a structural approach to organizational communications as follows:

> ...the communications system is vitally affected by other structural and processual factors. Communications do not exist outside the total organizational framework... More and more accurate communications do not lead inevitably to greater effectiveness for the organization. The key to the communication process in organizations is to ensure that the correct people get the correct information (in amount and quality) at the correct time.

Most structuralists, however, devote little attention to communication and do not have a theory which explains how the correct people communicate in order to get the correct information. When they do examine communication, they, like members of the other schools, view communication as a means for disseminating information from management to subordinates. Seldom do they try to explain communication as behavior, a behavior of individuals within organizations and of organizations and their environments (see also Cyert and March, 1963, who formulate a theory of organizational information search).

These theorists, however, generally overlook the fact that organizations have a variety of roles which are filled by professional communicators, professionals whose role is to mediate between subsystems or between the organization and external systems. These roles include: public relations, employee relations, labor relations, marketing and advertising, information retrieval, and others, depending on particular titles in different organizations.

Existing "theories" of organizational communication are of little use to these professionals because the theories are generally descriptive

(e. g., they tell how information flows through an organization) or predictive (e. g., researchers have found that upward communication will be biased in favor of the superior's expectations). Seldom is such theory explanatory. Most organizational communication theory falls into the category of what Brown (1963) calls empirical generalizations rather than theory because it leaves unanswered the question of why the empirical generalization occurs. The "why" question can perhaps always be asked of any theory, but Brown says that as the answer becomes more and more abstract, the theory becomes more useful.

Existing "theories" also pay more attention to the information-dissemination function of communication than to the information-acquistion function--e.g., downward internal communication gets more attention than upward communication (Smith, Richetto and Zima, 1972:279; Redding, 1966: 47-82). Since management generally finances research into organiaztional communication, the resulting theories have been more useful for managers wishing to manipulate than for professional communicators wishing to mediate. The theories may help management to diffuse an innovation but do little to help it seek an innovation.

This article will present a theory of organizational communication that will explain organizational communication as one aspect of organizational behavior. Communication will not be conceptualized as a natural process which occurs according to natural laws, but as an artificial procedure which individuals and systems design to bridge gaps in the system (Carter, 1973; Simon, 1969). Communication will be viewed as behavior which systems use to reduce uncertainty and to deal with problematic situations (Grunig, 1966).

To a large extent, the structure of an organization defines the problematic situation for individuals within the organization. It also determines the organization's flexibility and responsiveness to information inputs from the environment. Therefore, organizational structure will be conceptualized here as the most important concept explaining why individuals in organizations and organizations themselves communicate.

To be useful to professional communicators, an organizational theory of communication must also distinguish communication as a mediating procedure from communication as a persuasive procedure. The difference can be seen clearly in terms of Thayer's synchronic (1968: 129-30) and dischronic modes of communication. In the synchronic mode one of the participants in the communicative encounter attempts to "synchronize" the psychological stage of the other with his own. In the diachronic mode, however, the purpose of the communicative encounter is a "joint or cooperative effort to achieve <u>whatever</u> result comes from the encounter."

The theory will also be a multi-systems theory in that the same explanatory concepts will be applied to communication behavior at several system levels and between different systems. Such a multi-systems theory appears to be possible in communication theory (Westley, 1966) and in theories of organizational and individual decision making (Alexis and Wilson, 1967). Such a theory would be of great utility for a professional communicator who could use one theory to understand the communication behavior of the organization as a whole, of individuals and subsystems within the organization; of external publics, consumers, and clients; and of other organizations to which the organization is linked.

Once the theory has been conceptualized, original data from research

at several system levels will be presented to test and support the theory.

Decision Situations and Communication Behavior

Systems (including individuals, units within organizations, organizations, publics, and groups, among others) generally engage in two types of communication behavior. They acquire (seek) information and they disseminate (give) information. Information can be defined in information theory terms as anything that reduces the uncertainty in a situation (Schramm, 1973:38). When a system first gives information and then seeks information in the form of feedback, the system is generally communicating in Thayer's synchronic mode. When it first seeks information (by listening or asking a question), it generally is communicating in the diachronic mode.

Systems always communicate within a specific situation, and both the nature of the system and the nature of the situation will affect the kind of communication procedure the system will design to control its behavior in that situation (see Carter, 1973). Systems, therefore, communicate in "decision situations," situations in which systems must recognize and more toward one alternative or think about and choose between a movement toward more than one alternative (see Carter, 1965). Individual and structural characteristics of the situation influence the propensity of a system to communicate--i.e., to design procedures for information acquisition and dissemination (Grunig, 1973).

Structural characteristics can be defined as "relationships between individuals rather than the characteristics of individuals themselves" (Burns and Stalker, 1961: 3), "the persistent qualities

or given elements in the environmental conditions of choice or action" (V.A. Thompson, 1961: 7), or "an interrelated set of events which return upon themselves to complete and renew a cycle of activities" (Katz and Kahn, 1966: 20-21). In short, structure is a relationship, expected relationship, or cycle of relationships between individuals, systems or a system and its environment that affects the behavior of that system but which is not under the control of the system acting alone.

The "decision-situation" model of organizational communication conceptualized here predicts that systems will acquire and disseminate information as a result of two dimensions of a decision situation--one dimension which is individual, the other which is structural. To communicate, the cognitive structure of the individual (or the collective "cognition" of other systems) must be open, and the structure of the situation must be open. An open individual is one who recognizes alternatives—i.e., that a problem exists. An open structure is a structure where alternatives are available or feasible--i.e., where alternatives are not excluded by constraints.

These two dimensions were developed from theories of individual decision making (Grunig, 1966). They are concepts which have been articulated in a similar fashion by Katona (1953), Simon (1957), Biggs (1968), Kast and Rosenzweig (1970), Cyert and March (1963), Stigler (1961), Dewey (1922), Carter (1965), McDonough (1963), and Nicosia (1966). At the individual level, the distinction in levels of the problem-solving dimension is usually the difference between decision and habit (e.g., Katona 1953). The constraints dimension determines

the "volition" of the decision maker (Brehm and Cohen, 1964: 201-220) or the "situational relevance" of alternatives (Carter, 1965).

Organizational theorists have applied similar concepts to the analysis of higher-order systems. For the problem-recognition dimension, March and Simon (1958: 139) contrast routinized and problem solving responses of organizations and discuss programmed decisions (p. 187), Hall (1972: 36) contrasts rationality norms and survival norms, Katz and Kahn (1966: 104) distinguish between open and closed organizations and flexible vs. rigid codes (p. 59), Hall, Haas and Johnson (1966: 159) define an organizational problem as "any set of events which may have consequences for the survival of the organization." Burns and Stalker (1961: 119-123) contrast a mechanistic and organic organization, Bennis (1959) uses the concepts of problem solving and habit to contrast leadership style in organizations, and Hage and Aiken (1970) distinguish between dynamic and static organizations.

We can also note similarities to the problem-recognition dimension in Etzioni's (1964: 16-19) distinction between the systems model (reaction to problems) of organizations and the goal model (seeking a predetermined end), in V.A. Thompson's (1961: 630) contrast between a monocratic and innovative organization, in Schein's (1970: 120) adaptive-coping cycle, and in Crozier's (1964) description of the functioning of a closed-system bureaucratic organization.

While discussing what we call the problem-recognition dimension, both organizational and individual theorists discuss the effect of decision rules upon problem recognition. At the individual level, decision rules are habits which may be "intelligent habits" (they

are flexible and the individual is aware of them) or routine habits which sink below the level of consciousness and shut off consideration of new alternatives (Dewey, 1922: 71, 211). At the organizational level, Perrow (1972: 31) points out that:

> The greatest problem with rules is that organizations and their environments change faster than their rules. Most bad rules were once good, designed for a situation that no longer exists...

All systems develop decision rules to economize on information search, but systems differ on the problem-recognition dimension in the extent to which these rules remain flexible or become rigid and shut off the system from its environment.

The problem recognition dimension is also closely tied to the structural characteristics of an organization, as evidenced, for example, by Hage and Aiken's (1972: 66-68) research. They found that dynamic (open) organizations were high in complexity, and low in centralization, formalization, and stratification. Static (closed) organizations, on the other hand, were not complex, but were high on the other three attributes.

The constraint dimension (or the openness of the structure) also is widely used, in varying terms, in the organizational literature. The external environment may place constraints on the organization as a suprasystem, and the organization may in turn place constraints around the subsystems and individuals within the organization.

Buck (1966: 116-117) points out that decisions by individuals high in an organization become constraints around decisions by individuals one level below and so on. Thus, individuals at the lowest levels of the organization generally make completely constrained decisions.

Thayer (1968: 95, 97) pointed out that constraints are what organize an organization. Indeed without constraints, few formal organizations could exist. March and Simon (1958: 170-171) discuss internal organizational constraints in terms of "bounded rationality" or the "premises of decision making." Perrow (1972: 152) pointed out that the superior can structure the environment and perceptions of the subordinate, while Crozier (1964: 150) called "constraints of technical and organizational origins" the "organizational givens." Burns (1967: 158) added that "programmed decision-making is what it is because of the institutional framework around the individual." In relation to communication, both Buck (1966: 168) and Blau and Schoenherr (1971: 300) have pointed out that constraints generally take away the impact of human relations techniques, such as sensitivity sessions, and the psychological dispositions of individuals.

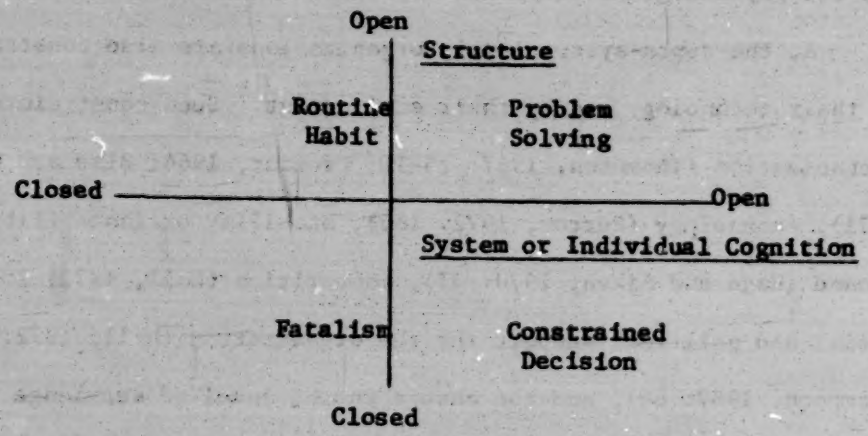
At the supra-system level, organizations are also constrained by their technology and by their environment. Such constraints include mechanization (Thompson, 1967: 15-18; Crozier, 1964; Blau and Schoenherr, 1971), technology (Perrow, 1972: 166), stability or instability of demand (Hage and Aiken, 1970: 77), competition (Hall, 1972: 73, 303), social and political support for the organization (Hall, 1972: 73-4; Thompson, 1967: 68), and the change in the level of knowledge (Hage and Aiken, 1970: 74).

Given, then, that these two dimensions of a decision situation have been found to predict the behavior of a variety of systems, we can combine the dimensions to produce four types of decision situations which should be highly useful in explaining communication behavior. The typologies can be visualized best as the

four quadrants of a Cartesian coordinate (Figure 1). The conceptualization of the four types is as follows:

Problem solving is a type of decision situation in which the system is open and recognizes that alternatives are present and therefore that a problem exists. Alternatives are also available within the structure. An individual or other system in this situation is "rational." He or it weighs alternatives and chooses among them. Volition, or perceived volition, in making a choice exists. Because the system evaluates alternatives, information is useful, and information acquisition and dissemination are important aspects of problem solving. Decisions rules, however, may reduce the amount of information seeking of this system.

Figure 1.



Constrained decision is characterized by physical or structural blocks within the system which rule out all but one alternative or one or more alternatives which the system might like to move toward. The individual or system has little perceived volition, even though he or it recognizes alternatives that are excluded by constraints in the

situation. Because alternatives are constrained, information seeking will be low, although information concerning presently excluded alternatives will not be avoided. The information that would be most situationally relevant and sought would be information offering means for eliminating the constraint.

Routine habit is characterized by a closed-minded individual or closed system in an open structure. This system considers only a habitual alternative. Information seeking is negligible and directed only toward messages which reinforce the habitual alternative. Such an individual or system readily gives defensive information, however, when the habitual alternative is threatened.

In fatalism, the system neither recognizes a problem nor has alternatives available within the structure. The individual or system has no control over the environment and has lost interest in controlling it. For these reasons, fatalistic systems seldom communicate—not even to seek information about means of removing the constraint.

These types of decision situations should explain the behavior of organizations as systems, as well as the behavior of individuals and subsystems of an organization. The model becomes even more useful in explaining organizational communication when it is extended to coorientational situations (for the concept of coorientation see McLeod and Chaffee, 1973).

In a coorientational situation, two systems which are oriented to a situation coorient with one another in regard to their respective situations. To communicate with one another, two systems would generally have to be in situations which allow for symbiosis of

problems and constraints (symbiosis as a necessary condition for communication is Thayer's (1968) concept). This symbiosis would seem to explain why systems communicate to other systems.

Of the 10 possible combinations of the four decision situations, only the combination of two problem solving systems facing related problems would seem to allow for communication interaction. On the other hand, two systems in a routine habit situation could communicate with and reinforce one another if they are attached to the same alternative. Two systems facing a constrained decision could communicate about a common constraint or could share frustrations about being constrained. It is also feasible that a problem solving system could communicate with any system in one of the other three situations to the extent of achieving accuracy with that system (being able to predict the cognitions of the other system). But this accuracy would be one-sided--i.e., the other system would not seek information from the problem solving system. In none of the other combinations of decision situations could communication occur with any degree of success.

Thus, the theory should explain why communication networks exist within organizations, why some organizations can and others cannot communicate with publics, consumers, or clients in their environment, why some organizations are relevant to external publics, why inter-organizational communication takes place only between certain organizations, and why management has difficulty in communicating with employees and clients. In other words, the theory seems capable of explaining many of the unexplained empirical generalizations common in the study of organizations.

Internal Communication: The Case of a Utility Company

One of the desirable properties of the decision-situation model is that it can be used as a means of seeking information from employees or publics at the same time that it is being tested empirically. It was used for this dual purpose in a study of a utility company servicing metropolitan Washington, D.C. We used the theory to help the company's employee communication department isolate types of employees in the company, to explain the communication behavior of these employee types, to isolate misunderstandings between management and workers, and to determine the information needs of employees.[1/] These data also provided a direct test of the theory.

The analysis was carried out through a case grouping procedure, a method perfectly suited for the professional communicator who must define and understand types of employees, publics or consumers. In case grouping, the researcher puts each respondent into one of a limited number of typologies based on the similarity of respondents on all concepts measured. Then he can compare concepts within and across types to determine the importance of the concept in defining the type and in distinguishing it from other types. Case grouping analysis, therefore, differs from cross-sectional analysis which shows the distribution of the entire sample around one or a small number of variables (see Salter, 1942).

Case grouping analysis can be accomplished rapidly through the use of Q factor analysis, the correlation and factoring of people rather than of variables. The important data in a Q study are the factor scores, or the scores for each variable on each factor or type of people.

These factor scores, in standardized Z-scores, make comparison within and between factors possible and reveal the interrelationships of variables which produced the types of people.

In the utility study, three types of employees resulted: an older, basically content, worker who because of age and seniority felt constrained in his job; a younger worker who considered alternative jobs, had high aspirations, and was currently dissatisfied with his job; and a management type of higher echelon employees.[2] We called these employee types the constrained older workers, the dissatisfied workers, and the management.

We applied the decision situation model in two ways in deriving the typologies. We first asked employees questions to determine whether they still considered other jobs and coded their response according to whether they perceived a problem (considered other jobs) and whether they faced constraints. Then we introduced the concept of problem orientation--the class of decision consequences or attributes of alternatives that are most relevant to a person in making a choice or moving toward an alternative. Problem orientation was particularly useful in defining information needs, in that it revealed the kind of information an employee needed to discriminate between alternatives.

Table 1 shows that the constrained older workers fell clearly into the fatalism category. They did not recognize a problem--they were least likely to be considering other jobs--and they faced

the most constraints to finding another job--primarily because of age and seniority. The younger workers were problem solvers, scoring high on problem recognition and low on constraints. Management was below average on both concepts and could be placed into the quadrant for routine habit.

The decision-situation theory would predict the younger workers to be most likely to acquire and be exposed to information about the company, and Table 2 shows this to be true. This table shows the results of questions which asked if employees had heard five items of information about the company and from what source they had heard it. The constrained decision makers (the older workers) seldom heard the items, while the younger workers were above average on nearly all potential sources of the information. The management type, which was the source of the information, generally heard it from formal word-of-mouth channels.

When we asked the respondents which existing and planned formal company media they had been exposed to or would expose themselves to (Table 3), the fatalistic employees were well below average on all media, management was well above average on all but a proposed complaint system, and the problem-solving younger workers were positive on only those media which provided relevant information rather than expressive reinforcement (a news bulletin board, seminars, and a newspaper) and which would allow them to give information about their problems (the complaint system). Management was most

likely to be exposed to company media, probably because routine habit systems seek reinforcement.

Other data showed that the problem solvers were most likely to use the grapevine when they needed information abou the company, while the fatalistic employees were most likely to go to their supervisor for that information. Management was the only type to evaluate the company formal media positively. And when the respondents were asked whether management's communication purpose was information seeking or giving, both worker types strongly indicated the purpose was giving, while the management type indicated just as strongly that it was seeking.

We also asked questions to determine each respondent's problem orientation in choosing a job, his orientation in performing his role in the organization, and the problem orientation he believed the overall organization should stress. Then we asked workers to predict how management would answer the same questions and asked management to predict how workers would answer. The responses for organization orientation illustrate these results. (Table 4)

The fatalistic older workers believed the organization should be most oriented toward employees, efficiency, and the environment (the company had just decided to build a nuclear power plant). The problem solving workers were most concerned with the environment, employees and profits. Management thought the company should be

most concerned with consumers and profits, and least with employees and the environment.

Not only do these data illuminate worker-management disagreements, they also show misconceptions of what the other is thinking. Both worker types believed management was concerned only with profits and not with consumers, while management believed workers were, like themselves, most concerned with consumers and not concerned with the environment.

Those orientations, as expected, predicted the kind of information considered relevant by the three types (Table 5). Constrained older workers, with an employee orientation, most wanted information on other workers and their own role in the company. As is often typical of fatalists, they wanted information that would help them rationalize their situation. The problem solvers, with an environment, profit, and employee orientation, wanted financial information, as well as information on their role and on consumers. Management, with a consumer orientation, likewise preferred information on decisions affecting consumers.

These orientations and decisions types would also seem to explain which people are most likely to communicate with each other in the organization, but we did not have data to test that hypothesis.

In short, the Q analysis provided strong support for the decision situation model. To further test the model, an R correlational analysis was also done on some of the key variables. First, we

added the responses to all of the information network items that were presented in Table 2 and correlated this total information acquisition score with the problem recognition and constraint dimensions. Table 6 shows that both dimensions correlated significantly with information acquisition. (Note that Gamma coefficients, which are more appropriate correlation coefficients for the ordinal data used here than are Pearsonian R's, were higher than the R's). Partial correlation and step-wise multiple regression also showed that problem recognition explains information acquisition independently of constraints, although constraints had no effect independent of problem recognition (the two dimensions had a negative correlation of -.48).

Then we added the exposure to company media items and correlated this total score with problem recognition and constraints (Table 6). The zero-order correlations were significant, but low, for both dimensions and non-significant for both when the other dimension was partialled out. The constraint dimension was nearly significant, however, and the best predictor of the two for exposure.

Although the operationalizations of the decision situation dimensions tapped only part of the decision situations to which these information items would apply, the correlations are still generally significant, although problem recognition explains the information knowledge questions best (probably because the information is retained for application to a problem), while constraints best explain

the lack of exposure to formal company media (the content of the media probably was not relevant to perceived problems.)

Case Study of a Consumer Information Program

Organizations communicate regularly with consumers, publics, clients, and other external groups. Seldom, however, do organizational theorists pay much attention to this type of organizational communication. Yet it is the most important form of communication for an innovative organization which attempts to adapt to the needs of its environment.

Etzioni (1964: 98-100) suggests that few organizations have institutionalized lines of communication outside the organization. He adds that communication with clients, for example, "can be bad for the organization man" because interaction with clients is generally concentrated in lower reaches of the organization. If an employee is "successful with clients, promotion to the next, less client-centered level is more difficult."

In a second application of the decision-situation theory to an organizational system, we conducted a case study of the consumer information program of a major food and general merchandise chain in the Baltimore-Washington, D.C. area.[3] The company had received recognition and several awards for its "consumer has a right to know" program. Again, we were able to test the theory at the same time that it was used to help the organization seek information from its customers.

Q factor analysis again was used to isolate types of consumers.[4] Three types resulted, types which could best be distinguished by their demographic characteristics. One we called the working class type, a second the middle class type, and the third the professional type.

In this study, problem recognition was determined by asking respondents how many stores they had considered in deciding to shop at the store or stores at which they now shop. To measure constraints, we asked why these stores had been considered or not considered and responses were coded for mention of constraints. The most frequent constraint was lack of time or transportation needed to go beyond the nearest food store or to shop at more than one store.

Table 7 shows that the working class type was clearly in the fatalistic mode (the constraint was generally distance), the middle class type was slightly within the problem solving quadrant, and the professionals were slightly in the fatalistic mode (the constraint was generally time). Table 8 shows the sources from which each of the types had acquired information about four of the company's consumer programs. These data are consistent with the predictions of the decision situation model for the working class and to a lesser extent for the middle class. The professionals have acquired more information than one would expect, however, for moderate fatalists. The reason probably is that the professionals were

exposed to the information whether they sought it or not--particularly through in-store displays and radio and television advertisements.

We also asked whether respondents read food store advertisements and compared these advertisements. Results (Table 9) were similar to the consumer information data. The fatalists--the working class--were well below average on this variable. The middle class-the problem solvers-was above average and the professionals were in between. The same pattern is displayed also in Table 10 for the extent to which each type used the company's consumer information programs. Likewise, when we asked whether the respondents gave information to others about the consumer programs, the resulting Z-score for the working class was -2.2, -1.4 for the professionals, and .5 for the middle class. Also, the problem solving middle class generally first learned of the company through advertisements, the professionals by observing a store, and the working class by word-of-mouth or observation (a communication pattern explained by the constraints of each group).

We also applied the concept of problem orientation to these consumers to determine information needs--needs that would reveal whether the company's consumer information program was providing them relevant information. These orientations showed that the middle class generally bought with a price orientation, professionals with a brand orientation, and the working class with no orientation. We also determined problem orientation for typical general merchandise products to determine consumer information needs for these products. Table 11 shows the

results for one of the items--slacks. It shows that the middle class could be expected to seek information on ease of care and price, while professionals were most concerned with appearance (and generally shopped at more elite stores than this company's). The results were ambiguous for the working class.

As with the employee study, the information acquisition items were totaled and correlated with each decision-situation dimension. In this case, only constraints had a significant effect (Table 12). Problem recognition perhaps was measured poorly, which would also explain why the professionals tended to seek more information than expected--they were perhaps more in a constrained decision situation than in fatalism.

Then we added the scores for the advertisement attention and advertisement comparison variables and calculated similar correlations. In this case both dimensions had a significant and equal effect on this form of communication behavior.

In general, we can say that this study showed again the value of the theory in explaining the communication behavior of another system--this time consumers in the organization's environment.

A Case Study of Organization-Clientele Communication

Another application of the model in an organizational setting (Grunig, 1974) came in an effort to explain the internal communication network and the organization-clientele network of a community development agency in a suburban jurisdiction of Washington, D. C. It was expected that the sociomentric linkages inside the organization could be explained by

similarities in individual cognition of the problem orientation the organization should have and the constraints they perceived the organization to face. Likewise, it was expected that those individuals lower in the organization would have more congruent decision situations with the clientele and thus would be most likely to understand the clientele--i.e., predict accurately the problem orientation of the clientele and the constraints faced by the clientele.

The first prediction did not hold. Employees reporting sociometric linkages with one another were no more likely to share problem orientations and perceptions of feasible alternatives for the agency. There was, however, a difference in problem orientation between blacks and whites in the organization (blacks mentioned housing and services, whites employment.) Nevertheless, blacks were only slightly more likely to communicate with blacks than whites and whites only slightly more with whites than blacks. At the same time, blacks were more congruent with the clientele in their cognitions of problems and perceived constraints, and as the model would predict, also had more communication contact with the clientele. (Both blacks and whites, however, could accurately predict the problem orientation of the low-income clientele.)

The best explanation of these findings was that organizational structure and roles can force as well as restrict communication.

In this agency, blacks and whites were mixed throughout the organization and thus were forced to communicate with one another despite their differing problem orientations. Although constraints generally

retard communication, this study showed that in organizational setting constraints can also facilitate communication. Blacks and whites with differing natural communication behavior outside the organization were placed in interacting roles where the constraints of the organization forced them to communicate. Thus, accurate communication flowed from the clientele to the organization even though not all organization members agreed with one another or with the clientele. [5]

Total Organization Communication: A Study of Public Relations

Organizations communicate with their environments in several ways, either through individual contacts of their members or through institutionalized communications roles. One of the institutionalized roles is that of the public relations department. Most formal organizations use a public relations staff for at least part of their external communication, yet surprisingly few organizational researchers have studied [6] the public relations role.

For this reason, a study of public relations practitioners was designed to determine whether the decision-situation model, applied at the total organization level, would predict the communication behavior of the organization's public relations department. The study was also designed to determine how structural characteristics of an organization would relate to types of organizations fitting the decision situation modes.

A questionnaire was administered to public relations heads of 216 organizations in the Washington-Baltimore area. [7] The questionnaire consisted of items measuring problem recognition (items on importance

of tradition, programmed behavior, and code rigidity) and several constraints (such as routine technology, mechanization, social-political constraints, and declining demand). It also included structural variables (size, complexity, centralization, formalization, stratification, amount of production, efficiency, age and compliance patterns), a series of public relations procedures (such as formal and informal research of the public, press releases, contacts with government, etc.) and several other communications variables which basically distinguished between synchronic and diachronic communication, as conceptualized above. Finally, several scales were used to measure the professionalization of the public relations practitioner, with the expectation that professionals, as opposed to careerists, would be less likely to have their behavior determined by the structure of the organization.[8]

The decision-situation and structural variables were factor analyzed to yield types of organizations. Then the communication variables were factor analyzed to yield types of communication procedures. Finally, the professionalization variables were factored into professional and careerist scales. The organization types were then correlated with the types of communication procedures, with and without professionalization partialed out, to give a test of the decision-situation model at the organizational level.

The organizational variables could not be adequately factored into four types that would match the decision modes. Problem recognition and constraint variables always came out on one factor, indicating that the

two tend to co-vary in an organization. Thus, the final factor solution consisted of two types of organizations--problem solving and fatalistic.

Fatalistic organizations were high on programmed behavior, code rigidity, and importance of tradition (all indicating lack of problem recognition). They were also high on all constraints measured--they were characterized most by routine technology, a stagnant level of knowledge, and a great deal of competition, but also to a lesser extent by declining demand and socio-political opposition. Fatalistic organizations were also centralized, stratified, used coercive complicance patterns, and utilized mediating technology. Problem solving organizations were low on these variables and high on complexity, formalization, emphasis on efficiency, utilitarian compliance patterns, and long-linked technology. In addition, problem-solving organizations were larger, had larger public relations staffs, and gave more power to their public relations staff.

These types, then, were similar to Burns and Stalker's (1961) organic and mechanistic organizations and Hage and Aiken's (1970) static and dynamic organizations. However, these results showed the problem-solving organizations to be formalized where they were not found to be so in the Hage and Aiken study.[9] Constrained decision and routine habit organizations were not found, probably because organizations are more adaptive systems than are individuals. When the environment is open, the system opens, when the environment is closed, the system closes. Organizations apparently cannot see beyond their constraints (constrained

decision) and cannot shut themselves off from opportunities (routine habit).

Two factors of communications procedures resulted. These were based entirely on the public relations procedures measured; other communications variables did not factor and were analyzed separately. Most of the information-seeking procedures loaded highest on one factor (formal and informal research, contacts with "thought leaders," and contacts with the public). Information-giving procedures (such as writing press releases, holding press conferences, staging events, etc.) loaded highest on the other. The professional and careerist items factored into a professional and a careerist scale (professional training was the most important variable for the professional scale, careerist values for the careerist scale).

The information seeking (or diachronic factor) was expected to correlate positively with the problem solving organization factor, but the correlation was almost zero. Fatalistic organizations, as expected, correlated negatively with information-seeking procedures at -.134 (significant at .05). Problem-solving organizations correlated .342 with information-giving procedures, while fatalistic organizations correlated at -.357.

As the theory would predict, fatalistic organizations were found to neither seek nor give information. Other communication variables showed that the public rlations staff in a fatalistic organization exists primarily to react to the mass media in time of a crisis and to keep

up interpersonal contacts with linkages needed for the organization's survival.

Problem solving organizations use public relations for publicity (information giving) but not for public opinion research. The reason is probably that these organizations are also formalized and the public relations role traditionally has been defined as a publicity role, even though professional schools stress the research role.

The professional scale correlated negatively (-.136) with the fatalistic type and the careerist scale positively (.159). Neither scale correlated significantly with problem solving organizations. The principle reason for the low correlations was a lack of variance in the sample; few of the respondents scored highly on scales measuring professionalism. As a result, these scales had no effect on the correlations when they were partialed out.

A Q factor analysis, however, revealed a pattern of relationships more consistent with the theory. In this analysis, the sample of organizations was factored into two types, based on all variables measured. Because one of the two factors had more than 25% negative loadings, the computer program placed these negative-loading organizations into a third type (an opposite type of organization).[10]

Two of these organizations were problem solving, the third fatalistic, and their characteristics were almost identical to the types found in the previous analysis. The two problem solving types differed, however, in that one was less formalized, was smaller, was younger,

utilized intensive technology, and had a public relations practitioner scoring high in professional training and professional evaluation. The communications behavior of these three types fit the theoretical predictions almost perfectly (Table 13).

The fatalistic type was below average on all communication variables with the exception of press releases, informal contacts with newsmen, institutional advertisements, and the four linkage variables. Again, these results showed that fatalistic service the press in time of crisis (see negative score on crisis defense) and that they handle important interpersonal linkages.

The difference between the professional and careerist problem-solving types was clearly that between diachronic and synchronic communication. The careerist type was most likely to give information--to issue press releases, to have formal and informal contact with newsmen, to prepare institutional ads, to stage an event, to give rather than seek information externally, to have persuasion as a goal rather than understanding, to defend the organization in terms of crisis, to be oriented to the organization rather than the public, and to use downward internal communication. The professional type does all types of research, but the careerist type was slightly more likely to do formal surveys to evaluate a project and about as likely to do informal research to evaluate a project as was the professional.

These data indicate that as problem-solving organizations become older, larger, and formalized, they form decision rules which

institutionalize the public relations function as one which gives information on decisions reached by the rest of the organization. But public relations people have little role in those decisions.

Only problem solving organizations which are new, small, less formalized and which utilize intensive technology are likely to hire public relations professionals and to place them in a role where they have the flexibility to engage in diachronic communication.

As in the previous studies, these results showed that, once the structural and professional attributes characteristic to the organization as a system are sorted out, the theory explains well communication at another system level.

Interorganizational Communication: A Study of Low-Income Housing

In contrast to many forms of organizational communication researchers have devoted a good deal of attention to communication between organizations—e.g. between those organizations which form a "set" (Evan, 1966). The decision-situation theory predicts that inter-organizational communication will take place between organizations with combinations of decision situations which facilitate communication—particularly combinations of problem solving organizations facing symbiotic problems and common constraints.

In a study of a wealthy suburban county of Washington, D.C., problem definition and perceived feasible alternatives were measured through a key informant and used to develop typologies of 26 interest groups, governmental agencies, housing developers, and private employers

concerned with a shortage of low-income housing in the county (Grunig, 1972). All of these organizations perceived a housing problem, but they defined it in a different way and believed different alternatives possible. The two typologies which resulted differed on whether the problem was social or economic and on constraints they believe existed on governmental intervention in the housing market. As the coorientation combinations of the theory predict, the group in the "social" typology communicated most with groups in that typology; the theory did not hold for the economic typology (Table 14). The theoretical predictions probably did not hold for the economic typology because the housing problem generally was not as important to this group as it was to those organizations in the social typology, and thus the "economic" organizations were less motivated to communicate in order to solve the problem.

Conclusions

A theory of organizational communication has been presented which explains communication at several system levels important to the management of organizations. The heory has been supported with data from employee subsystems, a consumer system, intersystem relations between employees and a clientele, public relations communications of the total organization, and interorganizational communication. The results have consistently supported the theory at all of these systems levels.

The theory, therefore, has been shown to the highly useful in explaining organizational communication and of great utility to the professional communicator who must facilitate organizational communication.

FOOTNOTES

1. This study was carried out by the Seminar in Corporate Communication in the University of Maryland College of Journalism. Graduate students involved in the study were Shirley Al Doory, Fred Jacoby, Kay Lewis, Marie Mastin, and Harriet Rothenberg.

2. Total sample size was 100. Half of the sample was chosen purposively, as is generally done in Q studies. The other half was chosen randomly to guarantee representativeness of the sample. Half of the interviews were done in person; half on the telephone. All statistical analyses in this and the following studies were conducted at the University of Maryland Computer Center, with financial assistance from the Center.

3. Another study of the Seminar in Corporate Communication. Graduate students involved in this study included Vickie Beard, Carlton Caldwell, John Conley, and Nick Miles.

4. Sample size was again 100, chosen randomly from the Maryland suburbs of Washington, D.C., and one suburb between Baltimore and Annapolis. The sample was stratified to insure low-income respondents. All interviews were conducted by telephone.

5. For a review of research which shows that coorientational accuracy is a more frequent effect of communication than is agreement (attitude change or persuasion, see Wackman (1973).

6. An exception is a case study by Perrow (1961) which showed that organizations use public relations to build prestige which buffers the organization from its environment.

7. A study supported by a University of Maryland General Research Board grant to the author. The questionnaire was administered through a mail questionnaire, with a 75% rate of return.

8. These scales were adapted from Wilensky (1964: 152-53) and Hage and Aiken (1967: 80).

9. Hage and Aiken's study, however, included only public agencies of about the same size. The present study included all kinds of organizations of different sizes. The results show that as organizations become larger and more complex, there is little alternative to formalizing them in order to manage them--even if the organizations are problem solving. For more details on this study see Grunig (1974).

10. The maximum number of variables (number of people in Q study)for the factor analysis program utilized was 109. Since all 216 respondents could not be included the sample was split randomly. These results reported here are based on half of the sample. Other runs on the rest of the sample were almost identical.

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Table 1: Decision situation variables for three employee types, in Z-scores.

	Recognize Problem	Face Constraints
Constrained older workers	-1.6	1.8
Dissatisfied younger workers	1.2	-1.4
Management	- .4	- .9

Table 2: Sources from which employee types heard five information items about the company, by employee types, in Z-scores.

	Constrained older workers	Dissatisfied younger workers	Management
Not heard	2.2	.2	-1.9
News Board (bulletin board)	.5	.3	- .8
Employee magazine	.1	.7	- .5
Management newsletter	- .5	-.5	.6
Outside media	.2	.1	- .5
Internal formal word-of-mouth	- .6	-1.0	1.3
Internal informal word-of-mouth	- .7	.4	.1
External word-of-mouth	- .1	-.1	.1

Table 3: Exposure to present and planned company media by three employee types, in Z-scores.

	Constrained older workers	Dissatisfied younger workers	Management
News board exposure	-1.2	1.2	.4
Employee magazine exposure	- .4	-1.5	1.1
Management newsletter exposure	-1.4	-1.0	2.3
Exposure to planned newspaper	-1.3	.3	.7
Desire to attend seminars	-1.3	.5	1.0
Anticipated use of complaint system	- .3	2.1	-1.4

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Table 4: Orientations three types of employees think the company should have as an organization and predictions by workers for management and management for workers, in Z-scores.

	Orientation				
	Profits	Consumers	Efficiency	Employees	Environment
Constrained older workers					
Self	-1.3	-1.6	1.4	1.7	.9
Management	1.3	- .8	- .6	- .5	.6
Dissatisfied younger Workers					
Self	.2	- .1	-1.5	.2	1.6
Management	1.3	- .6	- .1	- .2	.4
Management					
Self	.7	1.6	- .1	-1.6	-1.9
Workers	-1.7	1.3	.6	.6	- .9

Table 5: Types of company information preferred by three employee types, in Z-scores.

Type of information	Constrained older workers	Dissatsified younger workers	Management
Other employees	2.5	- .6	-1.9
Pepco financial information	-1.2	.9	.1
Government regulation	.2	- .9	.1
Own role in Pepco	1.8	.0	-1.2
Decisions affecting consumers	-1.6	.5	1.5
Decisions affecting employees	-1.0	1.1	- .0

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Table 6: Correlations between decision-situation dimensions and two communication variables for employee study.

	Gamma	Simple R	Partial R	Multiple R^a	Beta Weight
Information acquisition with:					
Problem recognition	.44	.31	.25	.31	.28
Constraints	-.37	-.21	-.07	.31	.08
Media exposure with:					
Constraints	-.25	-.21	-.15	.21	-.17
Problem recognition	.18	.17	.07	.22	.08

[a] Step wise multiple regression; the difference in multiple R's reflects the explanatory power of each of the two dimensions independent of the other.

Table 7: Decision Situation Variables for three consumer types, in Z-scores.

	Recognize Problem	Face Constraints
Working Class	-1.5	2.8
Professionals	- .5	.5
Middle Class	.5	- .2

Table 8: Sources from which three consumer types heard of four Giant consumer programs, in Z-scores.

	Working Class	Profes-sionals	Middle Class
Not heard	2.7	-1.9	-1.3
Radio-television	-1.5	.5	.2
Newspaper	-1.8	.1	-1.0
Other people	.1	.1	.0
In store	-1.1	1.0	- .3
Other	.6	- .3	- .3

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Table 9: Use and comparison of newspaper food advertisements by three consumer types, in Z-scores.

	Working Class	Profes-sionals	Middle Class
Food advertisement attention	- .7	.1	.6
Food advertisement comparison	-1.0	.9	1.0

Table 10: Extent to which three consumer types use four consumer programs, in Z-scores.

Program	Working Class	Profes-sionals	Middle Class
Unit pricing	-1.8	.7	.3
Open dating	-1.6	1.6	1.1
Nutritional labeling	-2.0	- .1	.3
Percentage labeling	-2.3	- .6	.7

Table 11: Problem orientation of three consumer types in buying slacks, in Z-scores.

Orientation	Working Class	Profes-sionals	Middle Class
Fit	.0	- .9	- .5
Quality	- .3	.1	- .6
Ease of care	.5	- .1	1.2
Appearance	.9	1.5	- .0
Price	.7	.3	.5
Brand	.4	.0	.4

Table 12: Correlations between decision-situation dimensions and two communication variables for consumer study.

	Gamma	Simple R	Partial R	Multiple R[a]	Beta Weight
Information acquisition with:					
Constraints	-.43	-.21	-.17	.21	-.21
Problem recognition	.18	.11	.00	b	b
Advertisement attention and comparison with:					
Problem recognition	.29	.22	.12	.22	.15
Constraints	-.47	-.22	-.12	.25	-.15

a Step wise multiple regression; the difference in multiple R's reflects the explanatory power of each of the two dimensions independent of the other.

b Relationship not strong enough to be included in step-wise multiple regression.

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Table 13: Comparison in Z-scores, of communication variables for three types of public relations situations.

	Problem-Solving		
	Profes-sional	Career ist	Fatal-istic
Press Releases	-.0	2.3	1.0
Formal surveys before project	1.0	.6	- .1
Formal surveys to evaluate project	.9	1.2	- .1
Informal research before project	1.0	- .6	-1.5
Informal research to evaluate project	.9	.3	-1.6
Preparing publications	-.2	-1.2	-1.3
Informal contacts with newsmen	.7	2.2	.1
Press conferences & formal contact with newsmen	-.0	.8	-1.1
Informal contacts with public	1.4	.5	- .9
Contacts with "Thought Leaders"	1.3	1.1	-1.5
Staging Events	.7	1.0	- .6
Preparing audio-visual materials	.8	.4	-1.0
Preparing institutional advertisements	-.1	1.5	.5
Counseling management	1.5	1.5	- .9
Contacting governmental officials	1.8	.8	-1.9
Writing speeches	.3	.1	- .8
External information giving (low), seeming (high)	.5	- .5	-1.3
Intrinsic (low), Extrinsic (high) appeals	1.5	- .1	- .2
PR goal—persuasion (low), understanding (high)	.4	-1.1	- .4
Crisis defense (low), crisis coping (high)	.0	- .8	-1.4
Orientation—organization (low), public (high)	1.0	- .2	.2
Boundary location—internal (low),external (high)	1.1	1.1	-1.0
Enabling linkages	.4	.4	.4
Functional linkages	.0	- .3	.2
Normative linkages	-.3	-1.3	.9
Diffused linkages	.0	.5	.5
Pressure group size—small (low), large (high)	.2	- .7	.2
Internal Communication--down(low), up (high)	1.2	- .4	- .7
Internal communication—expressive (low), instrumental (high)	1.2	.3	- .6

Table 14: Percentage of Possible Communication Contacts within and between typologies in a study of interorganizational communication.

	From "Social" Typology	From "Economic" Typology
To "Social" Typology	77%	50%
To "Economic" Typology	46%	43%

Only the 77% of the From Liberal Typology to Liberal Typology differs significantly from the others. The minimum t of the three t's testing the equality of this value with the other three Z's was 4.75, $p < .01$.

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